

## **Supplemental Material**

### **Substance Flow Analysis – A Case Study of Fluoride Exposure through Food and Beverages in Young Children Living in Ethiopia**

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Supplemental Material, Table 1: Data for mean and standard deviation (SD), probability distribution and sources of consumed food and beverages, recipes and concentration of fluoride for village A and village K. The Tnormal values denote truncated normal and Lognormal distributions.

	Mean value	SD	Probability distribution	Source
<i>Daily food and beverage consumption</i>				
Bread [kg/(Cap·d)]	0.163	0.049	Tnormal	Results <sup>a</sup>
Enjera [kg/(Cap·d)]	0.190	0.057	Tnormal	Results <sup>a</sup>
Sauce pulses [kg/(Cap·d)]	0.099	0.03	Tnormal	Results <sup>a</sup>
Sauce fish [kg/(Cap·d)]	0	0	Tnormal	
Tea [kg/(Cap·d)]	0.063	0.019	Tnormal	Results <sup>a</sup>
Water [kg/(Cap·d)]	0.54	0.16	Tnormal	Results <sup>a</sup>
Milk/whey [kg/(Cap·d)]	0.025	0.0076	Tnormal	Results <sup>a</sup>
<i>Recipes (proportion of ingredient and added water)</i>				
Bread: cooking water [%]	59	12	Tnormal	(Mesfin 1993)
Bread: maize [%]	63	13	Tnormal	(Mesfin 1993)
Enjera: cooking water [%]	131	26	Tnormal	(Mesfin 1993)
Enjera: teff [%]	54	11	Tnormal	(Mesfin 1993)
Sauce <sup>b</sup> pulses: cooking water [%]	60	12	Tnormal	(Mesfin 1993)
Sauce <sup>b</sup> pulses: vegetables [%]	27	5.4	Tnormal	(Mesfin 1993)
Sauce <sup>b</sup> pulses: pulses [%]	18	3.6	Tnormal	(Mesfin 1993)
Sauce <sup>b</sup> pulses: shiro [%]	0.5	0.1	Tnormal	(Mesfin 1993)
Sauce <sup>b</sup> fish: cooking water [%]	20	4	Tnormal	(Mesfin 1993)
Sauce <sup>b</sup> fish: vegetables [%]	20	4	Tnormal	(Mesfin 1993)
Sauce <sup>b</sup> fish: fish [%]	60	12	Tnormal	(Mesfin 1993)
Sauce <sup>b</sup> fish: shiro [%]	0.5	0.1	Tnormal	(Mesfin 1993)
Tea: drinking water (if not 100% then cooking water is added) [%]	100	20	Tnormal	
Tea: tea leaves [%]	1	0.35	Tnormal	(Malde et al. 2006)
Drinking water (if not 100% then cooking water is added) [%]	100	20	Tnormal	

<sup>a</sup> Refers to the results section in the main document

<sup>b</sup> The sauce may contain vegetables, meat or fish. In the present study we have included sources with known fluoride concentration.

Supplemental Material, Table 1 (cont.): Data for mean and standard deviation (SD), probability distribution and sources of consumed food and beverages, recipes and concentration of fluoride for village A and village K. The Tnormal values denote truncated normal and Lognormal distributions.

	Mean value	SD	Probability distribution	Source
<i>F Concentration</i>				
Cooking water (Village A) [mg/l]	1.95	0.3	Lognormal	(Malde et al. 2003)
Drinking water (Village A) [mg/l]	1.95	0.3	Lognormal	(Malde et al. 2003)
Cooking water (Village K) [mg/l]	14.4	0.4	Lognormal	(Malde et al. 2003)
Drinking water (Village K) [mg/l]	14.4	0.4	Lognormal	(Malde et al. 2003)
Maize [mg/kg]	1.1	0.33	Lognormal	(Malde et al. 1997)
Teff [mg/kg]	6.1	1.8	Lognormal	(Malde et al. 1997)
Vegetables [mg/kg]	0.62	0.19	Lognormal	(Malde et al. 1997)
Pulses [mg/kg]	1.8	0.54	Lognormal	(Malde et al. 1997)
Shiro [mg/kg]	2.5	0.75	Lognormal	(Malde et al. 1997)
Fish [mg/kg]	2.6	0.78	Lognormal	(Malde et al. 1997)
Tea leaves [mg/kg]	600	180	Lognormal	(Malde et al. 2006)
Milk [mg/l]	0	0	Lognormal	(Kahama 1997; Opinya et al. 1991)

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